COAL MINING AND RECLAMATION PERMIT
APPLICATION TO REVISE A PERMIT (ARP)

Issued To: AMERICAN ENERGY CORP
43521 Mayhugh Hill Rd.
Twp Hwy 88
Beallsville, OH 43716

Telephone: (740) 926-9152

Permit Number: D-425
Application Number: R-425-23

Effective: 10/20/2010
Expires: 10/21/2014

ARP Type:
Other

The issuance of this ARP means only that the application to conduct a coal mining operation meets the requirements of Chapter 1513 of the Revised Code, and as such DOES NOT RELIEVE the operator of any obligation to meet other federal, state or local requirements.

This ARP is issued in accordance with and subject to the provisions, conditions, and limitations of Chapter 1513 of the Revised Code and Chapters 1501:13-1, 1501:13-3 through 1501:13-14 of the Administrative Code.

The approved water monitoring plan for this ARP is:

Quality: N/A
Quantity: N/A

Note: Any previous condition(s) imposed on this permit, or subsequent adjacent areas, also apply to this ARP unless noted otherwise.

Signature: John F Hunter BH **Date:** 10/20/2010
Chief, Mineral Resources Management

OPERATOR

F100 Rev: 07/01/2001

X New Submittal
Revised Submittal R- 425-23

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

APPLICATION TO REVISE A COAL MINING PERMIT

Note: Refer to the division's "General Guidelines for Processing ARPs" and "Requirements for Specific Types of Common ARPs" for guidance on submitting and processing ARPs.

1. Applicant's Name **American Energy Corp.**
   Address **43521 Mayhugh Hill Road**
   City **Beallsville** State **OH** Zip **43716**
   Telephone Number **740-926-9152**

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CAMBRIDGE

2. Permit Number **D-0425**
3. Section of mining and reclamation to be revised:
   Part 3: Item A(10)
4. Describe in detail the proposed revision and submit any necessary drawings, plans, maps, etc:
   All operations will occur on permited sites. See Addendum to ARP Item 4
5. Describe in detail the reason for requesting the revision:
   The revision is being requested for the addition of a slope and overland beltline for the purpose of removing coal from the mine and transporting it to the raw coal stock pile.
6. Will this revision constitute a significant alteration from the mining and reclamation operations contemplated in the original permit? ☐ Yes, ☒ No.
   (**Note:** refer to paragraph (E)(2) of 1501:13-04-06 of the Ohio Administrative Code to determine if a revision is deemed significant.)

   If "yes," complete the following items 7 through 9.
7. In the space below, give the name and address of the newspaper in which the public notice is to be published.
8. In the space below, give the text of the public notice that is to be published. (Include the information required by paragraph (A)(1) of 1501:13-05-01 of the Ohio Administrative Code.)

OPERATOR

9. In the space below, give the name and address of the public office where this application is to be filed for public viewing.

Belmont County Courthouse,
Recorder's Office,
101 West Main Street,
St. Clairsville, Ohio 43950

I, the undersigned, a responsible official of the applicant, do hereby verify the information contained in this revision request is true and correct to the best of my information and belief.

Print Name Farley R. Wood Title Director of Permitting

Signature [signature] Date 10-7-10

Sworn before me and subscribed in my presence this 7th day of October, 2010

Expires: Sept. 26, 2015

[signature]
Notary Public

(For Division Use Only)

This application for renewal is hereby ☒ issued, ☐ disapproved.

[signature] BH
Chief, Division of Mineral Resources Management

OCT 20 2010
Date

ORIGINAL

American Energy Corporation
Century Mine D-0425
ARP R-0425-23
Backfilling Plan

Backfilling

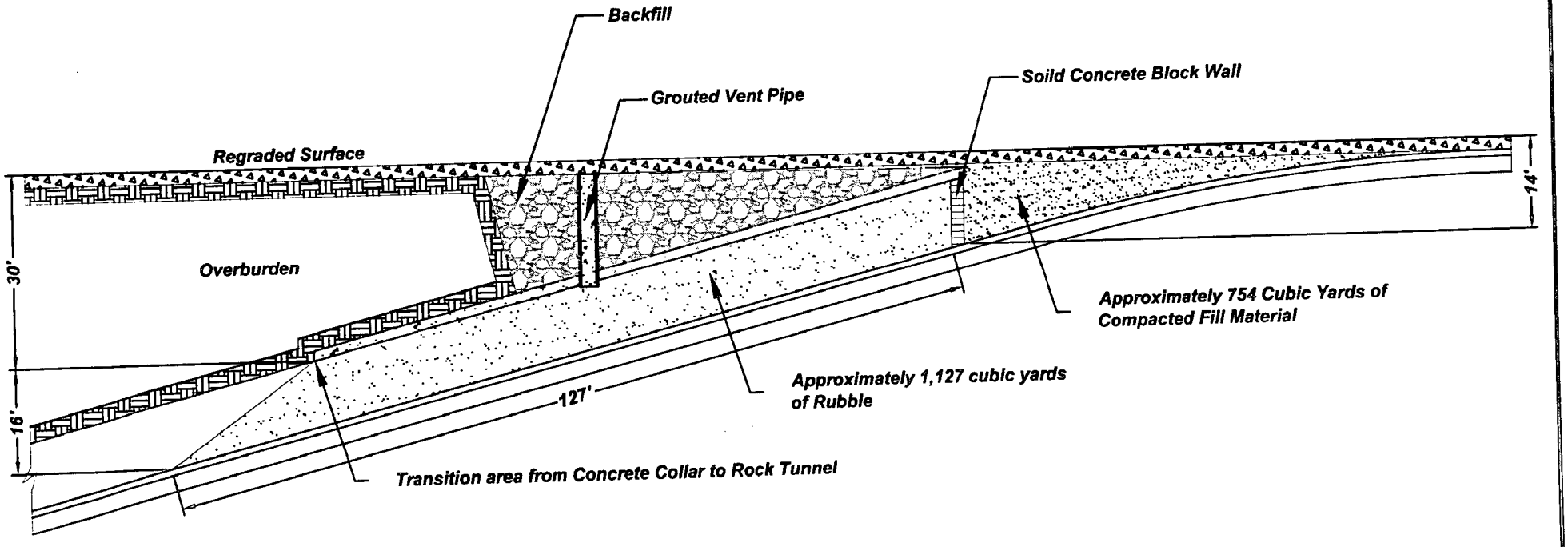
During slope construction approximately 2,193 cubic yards of material will be excavated so that a concrete collar section can be constructed. After the collar is constructed the box cut will be backfilled. The first 1,028 cubic yards of the excavated material will be used for the backfilling operations since the upper stratas generally consist of clays and shales that are more easily compacted. The rest of the excavated material will be placed in the coarse refuse disposal area already being utilized by the AEC Century Mine. The fill will need little compaction as it is not load bearing, and serves no structural purpose. It will be crowned to allow for settling.

Material Storage

The remaining material as well as the material from the slope construction will be placed in the coarse coal refuse pile. The total permitted capacity for refuse storage is approximately 17,500,000 tons. The material removed totals approximately 15,889 cubic yards with a unit weight of approximately 1.5 tons per cubic yard it equals approximately 23,595 tons of material to be placed in the refuse storage area. This is approximately 0.001% of the total available storage capacity and will be of little significance overall.

Greg S. Williams, PE — 10/6/10
Date

Reclaimed Box Cut Profile



Notes:

1.) The exposed portion of the concrete collar will be removed during reclamation operations.

STATE OF OHIO
GREG S. WILLIAMS
E-57998
REGISTERED
PROFESSIONAL ENGINEER

10/

Engineer Signature

Prepared By:	RWB
Checked By:	FRW
Date:	9/16/2010
Scale:	Not to Scale
Sheet:	1 of 1

Slope Reclamation Typical
American Energy Corporation
Century Mine D-0425
New Slope ARP R-0425-23
Wayne Township
Belmont County, Ohio

AEC 08301

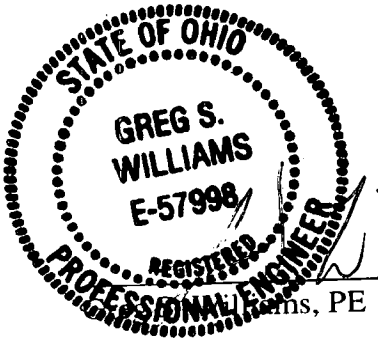
American Energy Corporation
Century Mine D-0425
ARP R-0425-23
Loading Description

Loading

At the bottom of the slope there will be an approximate overburden depth of 396'. At this depth there will be approximately 64,125 lbs or 32 tons per square foot of force being applied to the slope tunnel.

At the point where the Slope crosses under the highest point of the clean coal pile along the slope alignment the overburden is approximately 209' deep. This equates to approximately 34,001 lbs or 17 tons per square foot of force on the slope tunnel. The clean coal storage pile for the AEC Century mine has a maximum height of 86' at the point where the slope crosses beneath it. The maximum height is determined by measuring the distance from the maximum toe and using an angle of repose of 35 degrees. This equates to having approximately 4,306 lbs or 2 tons per square foot of additional force added to that of the overburden at the same point.

The amount of the combined force of the clean coal and overburden is approximately equal to 38,307 lbs or 19 tons per square foot. This force is 60% total force of the overburden at its deepest point. Therefore the force of the clean coal pile is no concern.



ms, PE

10/6/10
Date

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

Mine Plan (Performance Security) Summary

Permittee Name: American Energy Corporation Permit Number: D-425

1. **Permit Acreages:**

a.	Total Area for Permit/IMU:	327.6 acres
b.	Area of Slurry/Refuse:	154.4 acres
c.	Area required for Prep Plant Facilities:	acres
d.	Area for Permanent Primary Roads:	acres
e.	Area Revegetation Not Required:	acres
f.	Maximum Operational Area (MOA):	acres
g.	Area Proposed Not to be Affected:	acres

2. **Maximum Pit Dimensions:**

a. Pit Sizes: (measured from bottom of pit)

Pit #	Length *(ft)*	Width *(ft)*	Depth *(ft)*	Type *(1 or 2)*[a]	WT[b] *(ft)*
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

[a] *Enter 1 for contour mining or 2 for area mining.*

[b] *Enter a depth of the water table for area mining.*

b. Maximum unreclaimed length of augered highwall: feet

AEC 08303

3. **Channel Construction/Rock Required:** N/A ☐

a.	Total of rock larger than D50 of 18 inches:	0 CYD
b.	Total of rock between D50 of 18 to 6 inches:	3247 CYD
c.	Total of rock smaller than D50 of 6 inches:	15272 CYD
d.	Total length of grass lined channels and stone centered waterways	11505 feet

4. **Resoiling Parameters:**

a.	Average depth of resoiling material needed:	6 inches
b.	Enter area of resoiling with close on site materials: (Condition 1) *(<500')*	151.2 acres
c.	Enter area of resoiling with distant on site materials: (Condition 2) *(>500')*	0.4 acres
d.	Average depth of PRIME FARMLAND resoiling material needed:	48 inches
e.	Enter area of resoiling for PRIME FARMLAND: (Condition 1)	7.98 acres
f.	Enter area of resoiling for PRIME FARMLAND: (Condition 2)	acres

5. **Utilities:** N/A ☐

a.	Length of any active utility line (gas, water, etc.) be affected:	7320 feet to
b.	Number of active oil or gas wells in mining area:	#

6. **Phase Releases:** N/A ☐

Attach an addendum and list the various Phase Releases and their respective acreages.

7. **Impoundments/Wetlands:**

a. Impoundments:

Impoundment ID	Volume Below Principle Spillway *(Acre-Feet)*	Impoundment ID	Volume Below Principle Spillway *(Acre-Feet)*
8C	.9	8B	1.71
8A	1.66	11	6
2	0.5	12	2.77
13	11.31	14	13.44
15	2.44	16	N/A
IBR-2 Sump	0.75	1-s	18.71
19	0.83	20	2.5
IBR-6 Sump	1.1	18	1.23
18A	2.62	IBR-8 Sump	0.24
IBR-9 Sump	1.4	23	2.2
24	4.3	25	1.4
IBR-10	0.3	IBR-11 Sump A	1.8
IBR-11 Sump B	0.6	1	3.161
IBR-19 Clarifer	0.06	IBR-19 Pnd # 1	2.69

b. Area of wetlands within the permit limits to be 0 acres affected:

8. **Haulroad or Miscellaneous Earthwork:** N/A ☐

Structure ID	Avg. Height *(feet)*	Top Width *(feet)*	Bot. Length *(feet)*	U/S Slope *(H:1 V)*	D/S Slope *(H:1 V)*	R. Abut Slope *(H:1 V)*	L. Abut Slope *(H:1 V)*	Available for Refuse Cap? [1]	Misc.[2] Earthwork *(CYD)*	Volume *(CYD)*

[1] *If applicable.*

[2] *Provide an addendum with a detailed calculation.*

9. **Slurry/Refuse:** N/A ☐

a. Depth of resoiling and topsoil for cap: 2 feet

b. Depth of clay material for cap: 2 feet

c. Onsite resoiling material available: 64185 CYD

d. Onsite clay material available: 64185 CYD

e. Tons per acre of lime for neutralization: tons/acre
(assumed 30 tons per acre if left blank)

f. List Phases or Cells for refuse :

Identification	Slurry or Coarse Refuse *(S or C)*	Surface Area to cover *(SQFT)*
Phase 1, 2, 3	**C**	**5837040**

10. **Substantial Known Events:** **N/A** ☐

Attach an addendum describing any other information that will impact the cost of reclamation. (Items include, but are not limited to road reconstruction, underground mine seals, landowner agreements, unrepaired slips, slides, etc.)

11. **Prep Plant Facilities:**

Does mine site have facilities for the purpose of processing coal? Y ☒, N ☐
If yes, fill out Item 12.

12. Prep Plant/Buildings Data:

a. Environmental Assessment and Remediation Estimate Supplied: Y ☐, N ☒
(If no Assessment, the state will assume lead, asbestos and hazardous materials are present at the facility. If the Assessment shows lead, asbestos, or hazardous materials are present and no Estimate is supplied, the state will estimate the cost of removal based on the information supplied.)

b. Nearest EPA approved hazardous waste receiving facility: miles

c. Distance to steel scrap facility: miles

d. Distance to appropriate disposal site: miles

e. Buildings:

Building Name or Number	Structure Type *(Steel, Concrete Masonry, Mix)*	Dimensions *(feet)*			Floor Material *Estimate thickness and type of steel reinforcement*[1]	Footer		Foundation Wall		
		Length	*Width*	*Height*		Type *Estimate thickness, width*[2]	Reinforcing *Heavy or Average*[1]	Wall Type *Block or Concrete*	Reinforcing *Vertical or horizontal and Heavy or Average*[1]	Wall Height *(ft)*
Example	*Steel*	*150*	*20*	*10*	*6" w/RWM*	*1' T, 2'W*	*H*	*Block*	*V, AR*	*2*
Plant	**Steel**	**150**	**125**	**60**	**6" w/RR**	**2' T, 3' W**	**H**			
Office	**Red Iron**	**125**	**90**	**20**	**6" w/RR**	**1'-6" T, 3' W**	**H**	**Concrete 12" T**	**H**	**2.7**
Warehouse	**Red Iron**	**100**	**100**	**20**	**6" w/RR**	**1'-6" T, 3' W**	**H**	**Concrete 12" T**	**H**	**2.7**
Maintence Shop	**Steel**	**60**	**40**	**16**	**6" w/RR**	**1' T, 2' W**	**H**			
MCC Room (2 Rooms)	**Block**	**10**	**10**	**8**	**6" w/RR**	**1' T, 2' W**	**H**			

1 RWM = Reinforced Wire Mesh, RR = Reinforced Rods, HR = Heavy Reinforcing, AR = Average Reinforcing, V = Vertical Reinforcing, H = Horizontal Reinforcing
2 T = Thickness, W = Width

AEC 08308

f. Storage Bins: N/A ☒

		ID	Structure Type	Dimensions *(feet)*			Floor Material *Estimate thickness and type of steel reinforcement*[1]	Footer	
				Length	Width	Height		Type *Estimate thickness, width*[2]	Reinforcing *Heavy or Average*[1]
SB1	*Back Wall*								
	Sides								
	Floor								
SB2	*Back Wall*								
	Sides								
	Floor								
SB3	*Back Wall*								
	Sides								
	Floor								

1 RWM = Reinforced Wire Mesh, RR = Reinforced Rods, HR = Heavy Reinforcing, AR = Average Reinforcing, V = Vertical Reinforcing, H = Horizontal Reinforcing
2 T = Thickness, W = Width

AEC 08309

g. Concrete Silos: N/A ☐

	ID	Avg. Diameter *(ft)*	Wall Thickness *(ft)*	Height *(ft)*
CS #1	Water Tank (Steel)	60	.5	12
CS #2	Thickner	120	1	18
CS #3	Raw Coal (2)	15	1	75
CS #4	Clean Coal (2)	15	1	75
CS #5	Raw Coal (3)	15	1	75

h. Conveyors: N/A ☐

	ID	Length *(ft)*
Conveyor #1	Raw	3018
Conveyor #2	Bottom to Transfer	1200
Conveyor #3	Clean	1700
Conveyor #4		
Conveyor #5		

AEC 08310

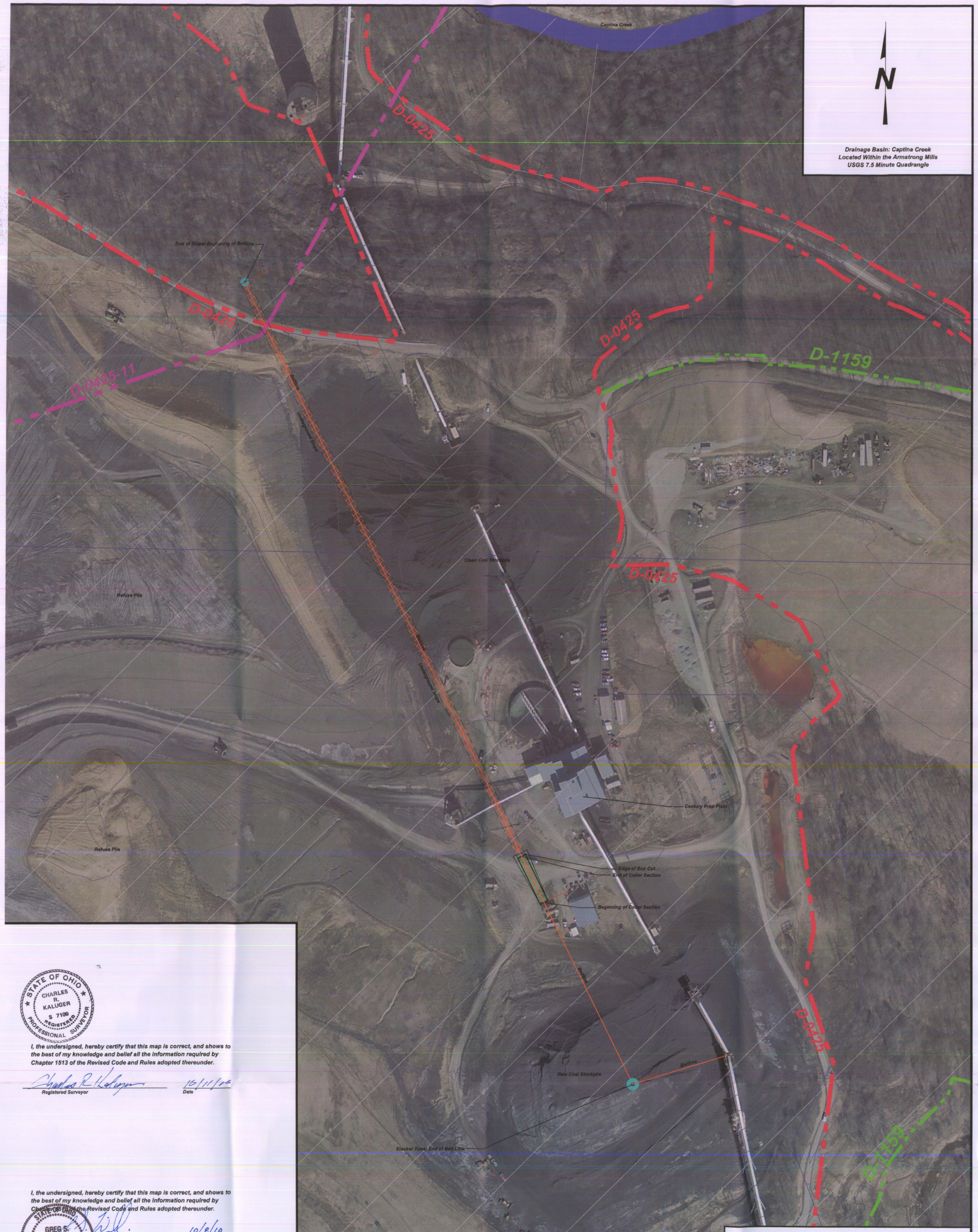
i. Concrete Pavement: N/A ☐

	ID	Concrete Reinforcement *(Plain or Reinforced)*	Length *(ft)*	Width *(ft)*	Thickness *(ft)*
CP Area #1	**Substation (2)**	**RR**	**32**	**32**	**4**
CP Area #2					
CP Area #3					
CP Area #4					
CP Area #5					

j. Asphalt Pavement: N/A ☐

	ID	Length *(ft)*	Width *(ft)*	Thickness *(ft)*
AP Area #1	**Parking Lot**	**200**	**200**	**0.6**
AP Area #2	**Supply Rd.**	**240**	**12**	**.75**
AP Area #3				
CP Area #4				
CP Area #5				

AEC 08311



STATE OF OHIO
CHARLES R. KALUGER
S 7109
REGISTERED PROFESSIONAL SURVEYOR

I, the undersigned, hereby certify that this map is correct, and shows to the best of my knowledge and belief all the information required by Chapter 1513 of the Revised Code and Rules adopted thereunder.

Charles R. Kaluger — 10/11/10
Registered Surveyor — Date

STATE OF OHIO
GREG S. ANTLITZ
E-57998
REGISTERED PROFESSIONAL ENGINEER

I, the undersigned, hereby certify that this map is correct, and shows to the best of my knowledge and belief all the information required by Chapter 1513 of the Revised Code and Rules adopted thereunder.

Registered Engineer — 10/8/10
Date

ACKNOWLEDGED BEFORE ME A NOTARY PUBLIC THIS 11th DAY OF October, 2010

Denise R. Tacker
NOTARY PUBLIC

SCALE 1" = 100'

0 100' 200' 300'

Notes:
1) The ARP area is located on the American Energy Corporation property.

LEGEND

- Parcel Line
- American Energy Corporation Property
- Surface Slope Operations
- Underground Slope Operations

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OCT 12 2010
DIVISION OF MINERAL RESOURCES
CAMBRIDGE

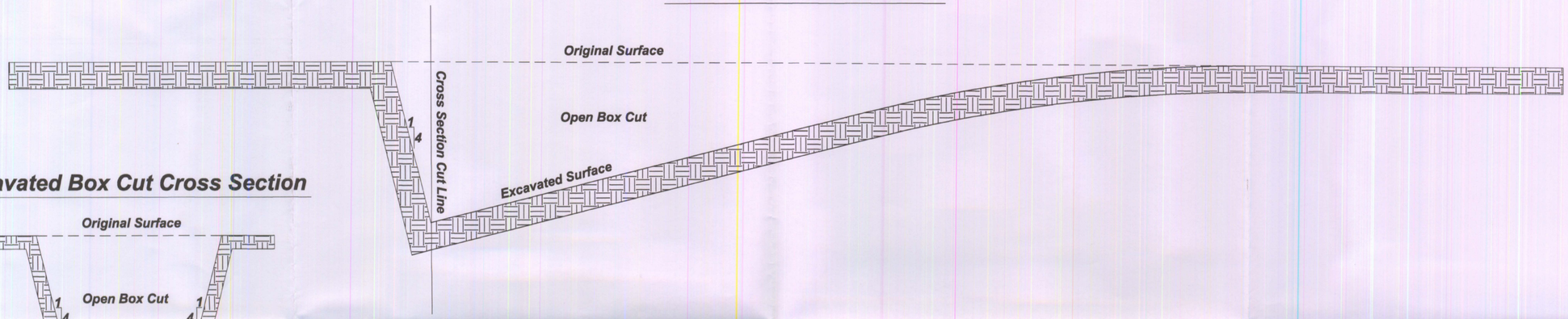
Revisions	
Date	Description
7/21/2010	Add Surface and Underground operations hatching.

Prepared By:	RWB
Checked By:	–
Date:	6/8/2010
Scale:	1"=100'
Sheet:	1 of 2

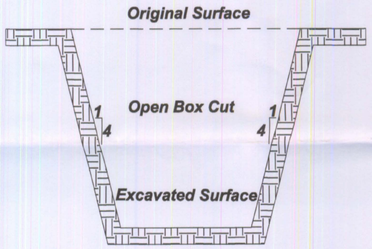
ARP Map
American Energy Corporation
Centruy Mine
D-0425
WayneTownship
Belmont County, Ohio

AEC 08312

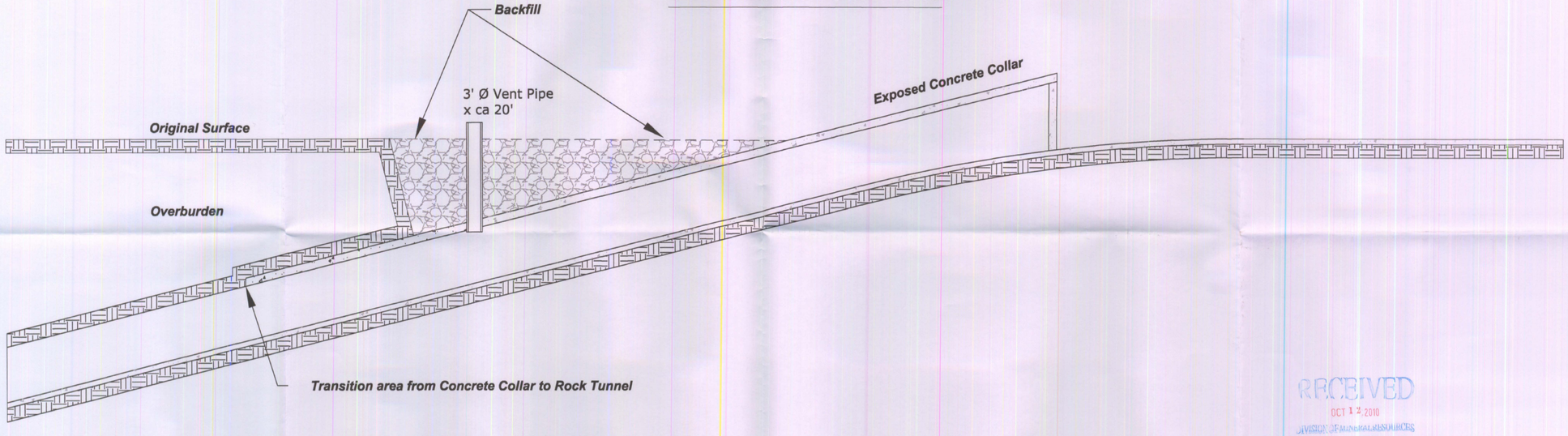
Excavated Box Cut Profile



Excavated Box Cut Cross Section



Backfilled Box Cut Profile



* This drawing is for reference purposes only and is not to scale.

STATE OF OHIO
GREG S. WILLIAMS
E-57998
REGISTERED
PROFESSIONAL ENGINEER

Engineer Signature

Revisions	
Date	Description

Prepared By:	RWB
Checked By:	–
Date:	5/17/2010
Scale:	Not to Scale
Sheet:	2 of 2

Box Cut Typicals
American Energy Corporation
Century Mine
D-0425
Wayne Township
Belmont County, Ohio

AEC 08313